



Program Revisions

Introductory Review

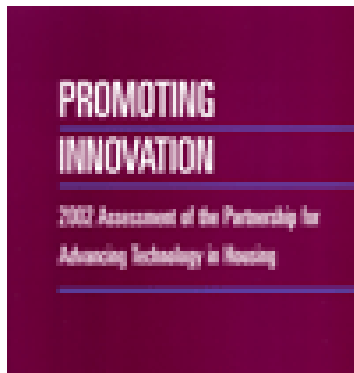
October 28, 2004

- **2003: A Turning Point for PATH**
 - **Approaches – Old and New**
 - **Goals – Old and New**
 - **Operations – Old and New**
- **Implementation – Old and New**

The Old and The New

2003

- **National Research Council: “New Approach & Goals!”**
 - **RAND : “Barriers, Schmarriers!”**
- **White House/OMB: “Specify Activities and Measure Performance”**
- **PATH Appropriations: “Stable, But Disproportional”**



- Focus on How Homes Perform—a.k.a. *product*

Changing the Way of Doing Business

- R&D Intensive

Federal Funds Given to Industrial Projects

- No Measures of Success (or Failure)

Ambiguous Link Between R&D and Social Good

- Limited Industrial Matching Resources

In-Kind Assistance

- **Focus on Getting Technology to Market—a.k.a. *process***

Improving the Current Way of Doing Business

- **Policy & Dissemination Intensive**

Changing Institutional Innovation Barriers & Information Resources

- **Measurable Performance**

Specific Inputs, Activities, Outputs, Short- and Long-Term Outcomes

- **Defining Roles and Resources**

Federal Funds for R&D Venture Capital, Providing “Public Goods”

Old Goals

- **Reduce** the monthly **cost** of new housing by **20%** or more.
- Cut the **environmental impact** and **energy use** of new housing by **50%** or more and **reduce energy use** in at least 15 million existing homes by **30%** or more.
- Improve **durability** and reduce **maintenance** costs by **50%**.
- Reduce by at least **10%** the risk of **loss of life, injury, and property destruction** from natural hazards and decrease by at least **20% residential construction work illnesses and injuries**.

**Focus on Home Performance (“Product”),
Operationally Impossible**

Vision:

To advance technology innovation in the homebuilding industry in order to improving housing value.

Goals:

- I. To develop new housing technologies and R&D.
- II. To disseminate technological information.
- III. To address the major technology barriers.

**Focus on Technological Innovation as the Vehicle for
Home Performance (“Process”),
Manageable & Measurable**

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- **“Low-Hanging Fruit” Initiatives**
 - **HUD Funds Research with Contract and Cooperative Funds**
 - **Dissemination Work Primarily Marketing of PATH Itself**
 - **Barriers and Policy Difficult to Grasp**

- **Planned R&D Criteria + Strategy for R&D Infrastructure**
- **HUD Funds + Explicit Industry Resources**
 - **Market Research Data, Tools, and New Technology-Based PATH Product**
- **“Barriers” Systematically Studied: Streamlining Status Quo + Institutionalizing Change**

Past Federal interventions in housing technology innovation have relied on two approaches:

- 1. Focus on product performance (particularly those R&D funding programs in DOE, FEMA, & HUD Healthy Homes);
or**
- 2. Creating special “cases” of innovation separate from the industrial, economic, and regulatory realities of the homebuilding industry—e.g., Operation Breakthrough.**

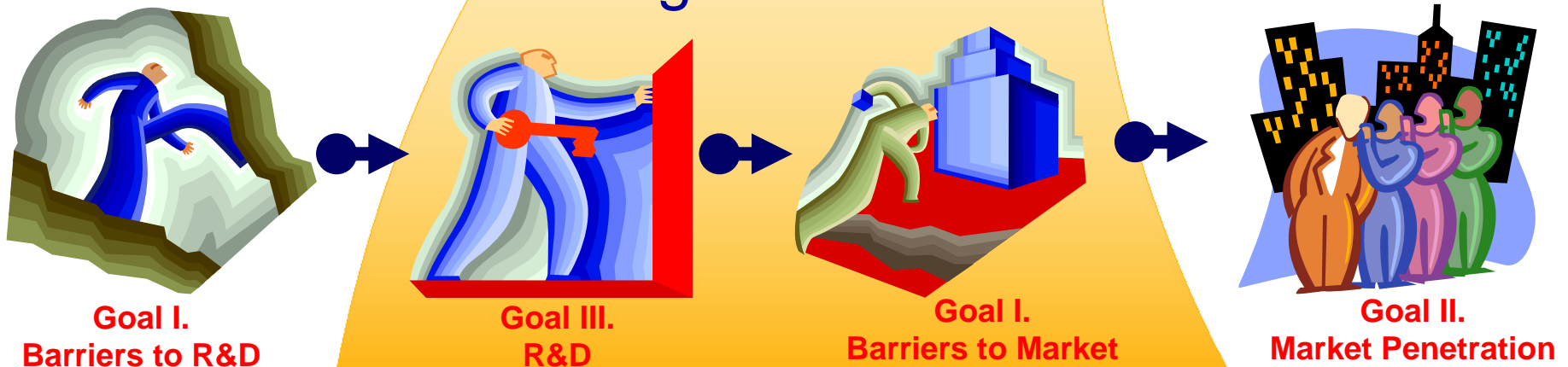
New Implementation

As such, new PATH goals were established around the factors of technological innovation in the current homebuilding industry. The following three overall goal areas were specified:

I. Innovation Barriers and Policies

II. Technological Information & Dissemination

III. Technological R&D Processes



Long-Term Outcomes

1. Regular review and prioritization of innovation barriers based on thorough analysis.
2. Increased proportional investment in R&D.
3. Sustained, decreased significance of institutional barriers on innovation development.
4. Decreased market asymmetries for all homebuilding participants and competitors.

Long-Term Outcomes

1. Housing consumers will take action as a result of easily accessible and clear information.
2. Homebuilders will utilize information in changing their practices; and provide technical information to their customers.
3. Remodelers will utilize information in changing their practices; and provide technical information to their customers.
4. Product manufacturers will provide clear and easily accessible information to all decision-making parties.

Long-Term Outcomes

1. **R&D Resources:** Housing needs a sustained, institutionalized R&D funding pool for all sectors of housing technology.
2. **R&D Processes:** Housing's supply chain needs a transparent and expedited understanding of the process of R&D.
3. **R&D Products:** R&D needs a standard knowledge base to compare project value, benefits, and effects on housing.

Next Steps

- **Operating Plan and Preliminary Metrics Completed in July, 2005.**
- **Submitted to and reviewed by PATH staff and the PATH Industry Committee in August, 2005.**
- **Submitted to the NAS/NRC for confirmation of overall direction in December, 2005.**
- **Submitted to OMB for approval of specific measures, February, 2006.**
- **After confirmation and approval, PATH will undergo the first full year's assessment.**